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(54) Title: SEALED INTEGRAL MEMS SWITCH.

(57) Abstract: A MEMS switch includes a micro-machined monolithic layer (122) having, a seesaw (52), a pair of torsion bars (66a, 66b), and a frame (64). The frame (64) supports the seesaw (52) for rotation about an axis (68) established by the torsion bars (66a, 66b). Shorting bars (58a, 58b) at ends of the seesaw (52) connect across pairs of switch contacts (56a1, 56a2, 56b1, 56b2) carried on a substrate (174) bonded to one surface of the layer (122). A base (104) is also joined to a surface of the layer (122) opposite the substrate (174). The substrate (174) carries electrodes (54a, 54b) for applying forces to the seesaw (52) urging it to rotate about the axis (68). An electrical contact island (152) supported at a free end of a cantilever (166) ensures good electrical conduction between ground plates (162a, 162b) on the layer (122) and electrical conductors on the substrate (174).

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